

# Verification of the recipe for strong ground motion prediction for huge subduction earthquake

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A preliminary source model composed of asperities for the 2003 Tokachi-oki, Japan, earthquake (MJMA=8.0) was estimated by the empirical Green's function method using Kik-net borehole data. The source parameters for three asperities located on the fault plane were determined from the comparisons of the synthesized broad-band ground motions with the observed ones. We found that the pulsive waveforms observed in north direction of the hypocenter were generated by the forward rupture directivity effect. Furthermore, the estimates of the stress parameter for asperities are higher than the averaged ones for past inland and subduction earthquakes.